## Follow-Up Audit Street Cut Inspection Program

March 1999

City Auditor's Office

City of Kansas City, Missouri

#### Office of the City Auditor

24th Floor, City Hall 414 East 12th Street Kansas City, Missouri 64106-2715

(816) 274-1331 Fax: (816) 274-1911

March 22, 1999

Honorable Mayor and Members of the City Council:

This follow-up audit of the city's street cut inspection program was initiated in accordance with the City Auditor's Office policy of assessing the implementation of audit recommendations.

Our 1994 audit found that excavations on city streets caused substantial damage. The cost of that damage was not recovered from those who caused it. Street cuts cause pavements to deteriorate at a faster rate. We estimated that the streets resurfaced in 1991, 1992 and 1993 would suffer \$4.4 million dollars in damage due to street cuts. Our audit work identified problems with the program's inspection efforts, coordination of city and utility work, and controls over permit issuance. We recommended a number of changes to the inspection program and to the permitting process. We also recommended that the city develop a method to recover the cost of damage that street cuts cause.

In response to our audit, the City Council twice passed ordinances designed to recover the cost of street damage from those who cause it. In both cases, the ordinances were repealed. In the first case, Missouri Gas Energy (MGE) initiated a petition drive to require the ordinance be repealed or placed on the ballot for a public vote. In the second case, MGE filed a lawsuit to prevent the ordinance from being enacted. The repeal of the ordinances means that local utilities, which account for most of the damage to streets caused by cutting, still do not pay the cost of that damage.

We estimate the current cost of damage to streets caused by excavations to be about \$1.4 million per year. The Water Services Department and MGE are responsible for most of the estimated damage.

We found that the Public Works Department has made significant progress in implementing other recommendations from the audit. Street cut inspections have increased, permit fees were raised twice, the city code was clarified, and restoration standards were updated. We also found, however, that newly paved streets are still being cut more frequently than necessary, and some control issues remain.

We recommend that the City Council put to a public vote its intention to recover the costs of the damage caused by street cuts. We also make a number of recommendations designed to further strengthen controls over the program.

The draft follow-up report was sent to the city manager and the director of Public Works on February 25, 1999. Their responses are included as appendices. We appreciate the courtesy and cooperation extended to us during this project by staff of the Public Works Department. The audit team for this project was Michael Eglinski, Aloysia George, and Joan Pu.

Mark Funkhouser

City Auditor

# Follow-Up Audit: Street Cuts

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### Introduction

## **Audit Objectives**

This follow-up audit of the Public Works Department's street cut inspection program was conducted pursuant to Article II, Section 13 of the Charter of Kansas City, Missouri, which establishes the Office of the City Auditor and outlines the city auditor's primary duties.

A performance audit is an objective, systematic examination of evidence to independently assess the performance of a government organization, program, activity, or function in order to provide information to improve public accountability and facilitate decision-making. A follow-up audit is an examination to determine whether an agency has taken timely and appropriate corrective actions in response to the problems identified and recommendations made in a previous audit.

This follow-up audit was designed to answer the following questions:

- To what extent have recommendations from the March 1994 audit of the street cut inspection program been implemented?
- Have recommendations resulted in desired improvements?
- Where recommendations have not been implemented, do conditions warrant that the original recommendation be implemented, changed, or withdrawn?

## Scope and Methodology

This follow-up audit was not designed or intended to be another full audit of the city's street cut inspection program. It was designed to determine the progress made in addressing problems identified in the original report and in implementing that report's recommendations.

We conducted this audit in accordance with generally accepted government auditing standards, with the exception of the completion of

<sup>&</sup>lt;sup>1</sup> Comptroller General of the United States, *Government Auditing Standards* (Washington, DC: U.S. Government Printing Office, 1994), p. 14.

an external quality control review of the office within the last three years.<sup>2</sup> Our methods included:

- Reviewing our March 1994 audit of the street cut inspection program, selected work papers, and Audit Report Tracking System (ARTS) reports.
- Reviewing the city code.
- Interviewing Public Works Department staff.
- Reviewing the 1995 engineering study that quantified damages to Kansas City streets related to street cuts.
- Analyzing the city's excavation permit database.
- Reviewing minutes and other materials from the Street Permits Task Force and the Utility Location and Coordinating Committee.
- Interviewing staff in other cities and reviewing studies from other jurisdictions.

No information was omitted from this report because it was deemed privileged or confidential.

## **Background**

Excavations, or utility cuts, are often made to access underground facilities. When excavations are made on city streets they are referred to as "street cuts." Street cuts are made by public and private utilities and contractors to install or upgrade utility lines, repair existing lines, and make connections to lines.

The city requires anyone making an excavation in the city's right-of-way to first acquire an excavation permit. The fee for a permit is \$35 for each excavation or each 100 feet of continuous trench. Cuts must be restored according to standards published by Public Works. Permittees are responsible for maintaining their cuts for three years after they restore them.

The city issues about 10,000 permits each year. A significant portion of the permits are issued to the Water Services Department and Missouri Gas Energy (MGE). (See Exhibit 1.) Permits are also issued to contractors, plumbers, Kansas City Power and Light (KCPL), and others who make excavations in city rights-of-way. Many of the permits are issued for excavations that are in the right-of-way but are not on paved surfaces. However, most of the permits issued to Water Services and MGE are for cuts to paved surfaces.

<sup>&</sup>lt;sup>2</sup> The last review was performed in April 1995. An external review is planned for the current year.

12000 8000 4000 1994 1995 1996 1997 1998 Water 
MGE All Others

Exhibit 1. Number of Excavation Permits (Fiscal Years 1994-1998)

Source: Public Works Department excavation permit database.

#### **Issuing Permits**

The Public Works Department's Engineering Division issues excavation permits. The Water Services Department, KCPL, and MGE have direct access to the city's excavation permit system, which enables them to acquire permits through remote access. These utilities are billed monthly for the permits they have acquired through the city's excavation permit system.

#### **Street Cut Inspection Program**

The Public Works Department's street cut inspection program is responsible for inspecting cuts. The program employs a number of inspectors who inspect new cuts and identify and follow up on failed cuts. Since the original audit, the program has increased the number of positions from 4 in 1994 to a proposed 10.5 for 2000.

Since 1994, there have been several significant increases in permit revenue. (See Exhibit 2.) Permit fees were increased from \$19 to \$22 in 1995, and increased again to \$35 in 1998. In 1996, the Public Works Department determined that MGE had not obtained permits for 2,596 excavations it had made in 1994 and 1995. As a result, the utility paid an additional \$57,112 in back permit fees in January 1997.

Exhibit 2. Excavation Permit Revenues

Fiscal Year	Revenues
1994	\$160,661
1995	216,686
1996	239,178
1997	341,747
1998	348,136
1999 <sup>3</sup>	404,000
2000 <sup>4</sup>	540,000

Sources: Kansas City Financial Management System (KCFMS), Submitted Budget 2000.

Excavation permit revenues are sufficient to cover the costs of the city's permitting and regulatory program. Public Works compared estimated revenues and direct and indirect costs and found that permit revenues are equal to the city's costs. The analysis, however, did not include the costs related to damage caused by street cuts.

#### **Summary of the 1994 Performance Audit**

The March 1994 performance audit found problems with the program's inspection efforts, coordination of city and utility work, and controls over permit issuance. We also found that street cuts cause extensive damage to the city's street system and the cost of damage is not recovered from those causing the damage. Street cuts cause pavements to deteriorate at a faster rate. We estimated that the streets resurfaced in 1991, 1992, and 1993 would suffer \$4.4 million in damage due to street cuts.

We recommended a number of changes to the inspection program and to the permit process. We also recommended that the city develop a method to recover the cost of damage that street cuts cause.

Exhibit 3 shows the implementation status of the original recommendations based on our audit work. Appendix A includes copies of Audit Report Tracking System (ARTS) reports submitted by the department.

<sup>&</sup>lt;sup>3</sup> Revenue is an estimate based on revenues through the first ten months of the fiscal year.

<sup>&</sup>lt;sup>4</sup> Proposed budget for fiscal year 2000.

	Recommendation	Status
1.	The director of Public Works should develop policies that require the inspection of at least a sample of the cuts made by utilities.	Implemented
2.	The director of Public Works should develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspections. The inspections should evaluate the cut against performance criteria established by the department.	Partially Implemented
3.	The director of Public Works should update the street cut restoration standards and the Utility Cuts Rules and Regulations.	Implemented
4.	The director of Public Works should develop policies and procedures for tracking and documenting the repair of all failed cuts that the department identifies. These policies and procedures should be in agreement with the Code of General Ordinances.	Implemented
5.	The director of Public Works should improve the effectiveness of the coordination mechanism between utility work and planned street resurfacing. The director should consider implementing financial incentives designed to improve the coordination between the City and utilities.	Partially Implemented
6.	The director of Public Works should issue written guidelines that define the number of permits necessary for making excavations.	Implemented
7.	The director of Public Works should incorporate the guidelines about the number of permits necessary into annual agreements with the utilities. The agreements should also require that the utilities will comply with the provisions of the Code of General Ordinances, including the requirement that permits be obtained before the excavations are made.	Not Implemented

		Recommendation	Status
8.	tha by	e director of Public Works should require at permits are issued for excavations made the Public Works Department. The fee for ch permits may be waived.	Not Implemented
9.	Co	e City Manager should prepare for City uncil consideration an ordinance to ablish an excavation permit fee that would:	Implemented
	A.	Cover the direct and indirect costs of the city's regulatory program. The regulatory program should include inspection and permit issuance.	
	B.	Contain economic incentives to coordinate with the city's resurfacing plans in order to minimize the cutting of recently resurfaced streets.	
	C.	Recover the costs of damage that results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation.	

#### **How Cuts Damage Streets**

Street cuts increase the rate at which pavement deteriorates, requiring increased city maintenance and more frequent resurfacing. The accelerated deterioration also results in a rougher pavement surface, increasing the costs that motorists pay for operating their vehicles. There are several reasons street cuts result in rapid deterioration:

Backfill settlement. The restored pavement is supported by backfill. If the backfill settles, the pavement loses support and may collapse or sink when it is subjected to traffic.

**Weakened pavement.** As asphalt cools it bonds with itself. The asphalt becomes a homogeneous structure. A cut weakens the structure. The weakened pavement deteriorates more rapidly when it is subject to traffic loads.

Cracking. Poor quality restoration and backfill settlement can result in the patched area cracking.

Water damage. Water can enter the base of the street when backfill settles and when the patched pavement deteriorates. Water softens the base material and causes damage when it freezes and thaws.

Weakened street support. When a hole is dug in the base under a street, it causes the surrounding soil to move towards the cut. As a result, the pavement surrounding a patch is weakened.

## Findings and Recommendations

### Summary

In 1996, the City Council passed two ordinances designed to implement our recommendations that those who damage streets should be required to pay a portion of the cost of that damage. In both cases, the ordinances were repealed in the face of opposition from Missouri Gas Energy (MGE). In the first case, MGE initiated a petition to force repeal of the ordinance or a referendum on the issue; in the second, MGE filed a lawsuit to prevent the ordinance from being enacted. The repeal of the ordinances means that local utilities, which account for most of the damage to streets caused by cutting, still do not pay the cost of that damage. We estimate that street cuts result in over \$1.4 million per year in damage to city streets.

The Public Works Department successfully implemented several other recommendations from the 1994 audit. Street cut inspections have increased, permit fees were raised twice, the city code was clarified, and restoration standards were updated. We also found, however, that newly paved streets are still cut more frequently than necessary, and some control issues remain.

## City Council Attempted to Recover Damages

The City Council attempted to require those who damage city streets to pay a portion of the cost of that damage. On two occasions, the council adopted ordinances that subsequently were repealed. As a result, damage continues to occur and the costs of the damage continue to be borne by the city and, ultimately, taxpayers.

The city has fiduciary and stewardship responsibilities over the public street system. A proposal to recover the cost of damage as a result of street cuts should be developed and presented to the voters at an election.

# MGE Led Opposition to Damage Recovery Ordinances Resulted in Repeals

In 1996, the City Council twice adopted ordinances designed to help recover damage costs from street cuts, discourage cutting on new streets, and to pay the costs of inspections. As a result, we consider the original recommendation to have been implemented. MGE opposed the ordinances, however, and initiated a petition drive and filed litigation to prevent their implementation. The City Council repealed both ordinances.

Cost of damage is substantial. Cuts made to city streets cause about \$1.4 million of damage each year. (See Exhibit 4.) A large portion of the estimated damage is the result of work done under permits issued to the Water Services Department and MGE. (For a description of the method used to estimate damage, see Appendix B.)

Exhibit 4. Estimated Damage Caused by Excavations on City Streets

1994	1995	1996	1997	1998
\$632,000	\$654,000	\$714,000	\$596,000	\$574,000
607,000	579,000	390,000	420,000	498,000
28,000	33,000	30,000	26,000	15,000
113,000	193,000	255,000	340,000	332,000
\$1,380,000	\$1,459,000	\$1,389,000	\$1,381,000	\$1,418,000
	\$632,000 607,000 28,000 113,000	\$632,000 \$654,000 607,000 579,000 28,000 33,000 113,000 193,000	\$632,000 \$654,000 \$714,000 607,000 579,000 390,000 28,000 33,000 30,000 113,000 193,000 255,000	\$632,000 \$654,000 \$714,000 \$596,000 607,000 579,000 390,000 420,000 28,000 33,000 30,000 26,000 113,000 193,000 255,000 340,000

Sources: Public Works Department records and permit database.

First ordinance repealed after MGE petition drive. In April 1996, the City Council adopted an ordinance designed to address the cost of damage to streets resulting from cutting. The ordinance would have required permittees to pay a damage restoration fee based on the amount of damage that a cut causes to the street. The damage restoration fee would have recovered a significant portion, but not all, of the damage costs. The fee would be reduced if the permittee followed restoration standards prescribed by the city. In order to discourage excavators from cutting newer streets, the fee was reduced for street surfaces more than five years old. The ordinance would have also included a fee for the inspection program. The revenues generated from the fees would be designated for street preservation.

Before the damage recovery ordinance became effective, MGE initiated a referendum petition drive to repeal the ordinance or place it on the ballot for a public vote.<sup>5</sup> In June 1996, the city received signed petitions that would have required the ordinance be repealed or submitted to the voters. Rather than submit the ordinance to the voters, the City Council repealed the ordinance.

<sup>&</sup>lt;sup>5</sup> In the Matter of Missouri Gas Energy's Tariffs Sheets Designed to Increase Rates for Gas Service in the Company's Service Area, Case No. GR-96-285, Public Service Commission of Missouri, January 22, 1997, p. 43. 10

Second ordinance repealed after MGE filed suit. After the repeal of the first ordinance, the city continued to discuss street cut damage with MGE. In October 1996, the City Council adopted an ordinance that would have presented the damage restoration fee to the voters. If the measure were approved at the election, the ordinance would have been essentially the same as the ordinance that was repealed in June 1996.

The damage restoration fee proposal was never presented to the voters. After the City Council approved the ordinance, MGE filed litigation against the city. MGE made a number of arguments to challenge the ordinance. The utility claimed that the ordinance was illegal, invalid, confusing, and misleading to the voters; that the ordinance would impair MGE's ability to provide natural gas service to residents; and that the ordinance would violate provisions of the U.S. and Missouri constitutions. MGE asked the court to permanently enjoin the city from enforcing the ordinance and submitting it to a vote.

The City Council repealed the ordinance in December 1996. As a result, the proposal was not submitted to the voters.

#### City Followed an Appropriate Process to Address Damage

The Public Works Department followed an appropriate and inclusive process to address damages and develop ordinances for consideration by the City Council. Although the city does not currently recover damages, the department's efforts were noteworthy.

Affected entities invited to sit on task force. Public Works formed a Street Permit Task Force to gather stakeholders to discuss street closure permits and excavation permits. Members of the task force included city staff and representatives of utilities and others that excavate in the right of way. Public Works invited participation from all the franchised utilities, the Home Builder's Association, local utility contractors, independent plumbers, a permit coordination service, and the "One Call" utility location service. The Water Services Department and MGE, which are responsible for a significant portion of all excavation permits, had representatives at the meetings. The task force met 11 times between January and November 1995. Prior to forming the task force, Public Works staff had discussed excavation permits at meetings of the Utility Location and Coordinating Committee.

<sup>&</sup>lt;sup>6</sup> Southern Union Company d/b/a Missouri Gas Energy v. The City of Kansas City, Kansas City Board of Election Commissioners, Clay County Board of Election Commissioners, Platte County Board of Election Commissioners and Cass County Clerk, In the Circuit Court of Jackson County, Missouri, case no. CV96-30227.

Damage costs determined by engineering firm. Public Works entered into a contract with an engineering consulting firm to measure the damage caused by street cuts to city streets. Terracon Consultants, Inc., studied the effect of street cut and patch construction on the structural capacity of surrounding pavements. Their analysis showed that the "zone of influence" around cuts was about 2.5 feet outside the cut. They also reported that an overlay of 1.5 inches would offset the structural deficiency in the zone of influence, but would not address the reduction in capacity at the joint of the restored cut and the surrounding pavement.

After the initial report, Public Works asked Terracon to further assess the area surrounding cuts where work could feasibly be conducted to repair structural deficiencies. Terracon found that full-depth removal and replacement of all pavement layers of an extending 21 inches beyond the edges of cuts would be needed.<sup>8</sup> Terracon also noted that full depth repair would address structural problems, but would not address ride quality of the restored street.

Terracon's findings were consistent with the findings of our original audit. Both studies reported that street cuts caused damage. Using different methods to quantify the damage, both studies derived similar estimates of the costs of damage.

### City Has a Responsibility to Protect Public Assets

The lack of a recovery fee assessed against those who cut streets means that the cost of cuts is borne by those who have not caused the damage and are not in a position to reduce the damage. Street cuts damage the pavement, and the city has a responsibility to recover the costs of the damage. The excavation permit process, when combined with a damage recovery fee based on the damage that a cut causes, is an equitable method of making those responsible pay for the damage they cause.

The street system represents a substantial investment of public funds. As steward of the system, the city is obligated to protect that investment. In May 1998, a committee formed by the Mid-America Regional Council (MARC) noted:

Local governments, in order to fulfill their fiduciary and stewardship responsibilities to the public must now find ways to effectively manage this public asset. Plans must

<sup>&</sup>lt;sup>7</sup> Pavement Evaluation Report, Utility Cut Study, Kansas City, MO. Terracon Consultants, Inc. Lenexa, KS, May 25, 1995.

<sup>&</sup>lt;sup>8</sup> Addendum to Pavement Evaluation Report, Utility Cut Study, Kansas City, MO. Terracon Consultants, Inc. Lenexa, KS, August 16, 1995.

be developed for the orderly use of the public right-ofway, as well as creating methods for identifying and recovering public costs involved with this process.<sup>9</sup>

Other local governments in the metropolitan area have begun to address damage recovery. Thirteen local governments, including the city, participated in the MARC committee that recommended street damage caused by street cuts should be recovered through damage recovery fees. (See Appendix C.) The MARC committee specifically recommended that cities recover the major costs associated with use of the public right-of-way. The cost components are damage to the roadway, repair, interruption of the normal use of the right-of-way, and administrative/management costs.

The recommendations made by the MARC committee are consistent with the recommendations from our 1994 audit and this follow-up. We recommend that the city recover costs of the damage, or degradation, caused by street cuts and the costs of the city's regulatory program.

**Issue should be presented to the voters.** We believe that a proposal to recover the costs of damage caused by street cuts should be developed and presented to the voters at an election.

The process Public Works followed in its previous attempts to impose the recovery fee might have been improved through more involvement from neighborhood groups and stakeholders who use the city's street system. Citizen and neighborhood groups have expressed concerns about the condition of city streets and of public infrastructure.<sup>10</sup> In addition, business groups, automobile users, and bicyclists have important concerns about the condition of city streets. A process that includes stakeholders with interests in the condition of infrastructure would be appropriate.

## Significant Progress Made in Implementing Recommendations

Although the ordinances were repealed that would have recovered portions of the cost of damage caused by cutting, the Public Works Department has been successful in implementing various other

<sup>&</sup>lt;sup>9</sup> Public Right-of-Way Cost Recovery Plan, Mid-America Regional Council, May 1998, p. II-1.

<sup>&</sup>lt;sup>10</sup> In the 1998 Kansas City citizen survey, 60 percent of the respondents rated the smoothness of streets in their neighborhoods as fair or poor. Only 6.2 percent of the respondents rated smoothness as excellent. Survey respondents rated the quality of street maintenance similarly. About 70 percent of respondents rated the quality of street maintenance as fair or poor, and only 2.7 percent rated the quality of street maintenance as excellent.

recommendations from our 1994 audit. The department has increased its inspections of street cuts, and increased permit fees that help pay for those inspections. Restoration standards were revised, a procedure for tracking failed cuts has been implemented, and the city code was clarified.

#### **Inspection Program Improved**

Our original audit recommended that Public Works develop policies that require the inspection of at least a sample of cuts made by the utilities. At the time of the original audit, the city only inspected permits issued to utility companies in response to complaints.

This recommendation has been implemented. Since the audit, the program manager has assigned inspectors to oversee cuts made by MGE and Water Services. The inspectors have checked portions of permitted cuts. Our follow-up audit work included accompanying inspectors as they inspected cuts made by these two utilities.

Warranty inspections partially implemented. In the original audit, we recommended that Public Works develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspections. The Code of Ordinances states that during the three-year period after a street is cut, the permittee is responsible for maintaining and repairing the restored cut. Without systematic inspections, failed cuts may not be discovered until after the warranty period expired. After the warranty has expired, the city is responsible for repairs.

The program manager developed reports for inspectors to use to check cuts approximately six months before warranties expire. The inspectors made checks based upon established criteria. However, the most recent report of warranty inspection cuts was generated in 1997.

The program manager informed us that warranty inspections did not identify many failed cuts. According to the program manager, complaints usually identify failed cuts before a warranty inspection. He credits the street resurfacing program with fixing problems before the warranty inspections. Staff indicated that inspecting for current permits is a higher priority than warranty inspections.

We recommend that Public Works develop an efficient way of conducting warranty inspections. Using a database, a sample of cuts that are between two to two and a half years old should be inspected for failed cuts. Warranty inspections can serve as a deterrent against permittees not repairing failed cuts during the time period specified by the code. It is not necessary for the city to conduct warranty inspections of all permits for the deterrent to be effective.

**Fees increased.** The fee that goes toward the inspection program was increased twice since the release of the original audit. The permit fee was increased from \$19 to \$22 in September 1994, and was increased again to \$35 in March 1998. The most recent change also allows the city to annually adjust the fee based on the inflation rate.

#### Street Cut Restoration Standards Were Updated

Our original audit recommended that Public Works update the street cut restoration standards and the Utility Cuts Rules and Regulations. We noted that the standards required all cuts to be restored in concrete. However, the department felt that cuts should be restored in a material that matched the street surface.

This recommendation has been implemented. Since the audit was released, the department has issued two revisions of the street cut restoration standards. A June 1995 revision required cuts to be restored in a material that matched the street surface. Other changes included a requirement that the surface of the cut be marked to identify the contractor and the year the restoration was done, and a requirement that a six-inch "T section" be repaired. (A "T section" is when the cap of the restored area covers an area larger than the dimension of the excavation.)

Standards were further revised in May 1998. The standard requires full lane-width restoration for cuts that are made to street surfaces that have been paved within two years. Full lane-width restoration only applies to cuts made for "non-emergency purposes." The revision also requires a 12-inch "T section" repair and requires permit holders to have the backfill inspected by the city. The standard requires Public Works to prepare a two-year schedule of street resurfacing plans and make the list available to excavators.

#### **Procedures for Failed Cuts Were Developed**

Our original audit recommended that Public Works develop policies and procedures for tracking and documenting repairs of all failed cuts identified by the department. The policies should be in agreement with the code, which requires repairs to be made within five days after the notification of defect.

This recommendation has been implemented. Public Works approved a policy on failed cuts in March 1995. The policy requires all substandard repairs or failed cuts to be documented and effective follow-up to be made to ensure proper repairs are completed. The policy applies to substandard repairs identified through routine inspections, complaints, or warranty inspections.

According to the program manager, the inspectors fill out problem forms and a letter is sent to the excavator. A copy of the letter and the original problem form are filed in a letter file or log book.

**Failed cuts repaired but not quickly enough.** We reviewed 87 notification letters for problems that were resolved during fiscal year 1998. Only four of these cuts were restored in five days or less. (See Exhibit 5.)

Exhibit 5. Days to Resolve Problems

Number of Days	Number of Problems	
5 or less	4	
6 to 30	35	
31 to 60	18	
More than 60	30	
Total	87	

Source: Problem notification letters.

According to the program manager, the reasons vary for why the majority of the repairs are taking more than the five days specified in the code. The timeliness of repairs can be affected by poor communication with contractors.

We recommend that Public Works ensure that the process the city uses to notify permit holders of problems with restored cuts provides adequate legal notice about failed cuts or substandard repair. The Code of Ordinances provides a general penalty provision. Whenever a specific fine or penalty for a code violation is not specified or the penalty of imprisonment for more than six months is provided, the offender shall be fined not less than \$1 and not more than \$500. The code also allows for the city to make repairs and then bill the permittee. The city should use the enforcement mechanisms included in the Code of Ordinances to ensure permittees make timely repairs after being notified of problems with excavations.

#### **Code Requirement Clarified**

When the original audit was released, the code was unclear about the number of permits required for excavations. We recommended that Public Works issue written guidelines defining the number of permits necessary for making excavations. This recommendation has been implemented. The code was revised to specify that each separate excavation or each 100 feet of trench requires a permit.<sup>11</sup>

Rules should define exceptions. The program manager of inspections said he used discretion regarding the required number of permits for cuts that are all made in the same parkway. The Law Department said certain technical matters are within the administrative purview of the Public Works Department. However, the rules need to be specific and written in order to ensure that all permittees are treated in a consistent and equitable manner. We recommend that the Utility Cuts Rules and Regulations be revised to specify conditions under which permittees may make multiple cuts under one permit.

## Controls Need to Be Strengthened

Although the Public Works Department has implemented many of the recommendations included in our original audit, improvement is still needed in several areas. We found that newly paved streets are still being cut more frequently than necessary, even though the department provides the utilities notice of planned resurfacing. The department has not developed annual agreements with the utilities that could be used to help ensure compliance with city regulations. Finally, we found that permits are not being issued for excavations by the Public Works Department and certain excavations by KCPL.

#### **New Streets Are Still Cut**

In the original audit we found that recently resurfaced streets were frequently cut. In order to reduce the number of cuts to new street surfaces, we recommended that Public Works improve coordination between utility work and planned street resurfacing. We also recommended that the department consider implementing financial incentives in order to reduce the frequency with which new streets are cut.

<sup>&</sup>lt;sup>11</sup> Code of Ordinances, Kansas City, Missouri, Section 64-112.

This recommendation has been partially implemented. Our follow-up work determined that cutting newly paved streets continues to be a problem. However, the restoration standard adopted in May 1998 may provide some financial incentives to reduce the number of cuts in newly paved streets.

According to the restoration standard, if a newly resurfaced street is cut for non-emergency purposes, the permit holder has to replace the full lane-width of pavement. This requirement will go into effect two years from the time that a street appears on the city's resurfacing list. The full-lane restoration requirement applies only to streets that appear on resurfacing lists in advance to the resurfacing. Full-lane restoration is more costly for the permittee than the usual restoration of a cut.

Imposing damage recovery fees will provide a further incentive to protect newly paved streets. We found that 8 of 36 randomly selected street segments resurfaced in the summer of 1997 have already been cut by utilities. In the winter of 1995-96, the street resurfacing program inspected the 239 streets resurfaced in1995 and found 32 streets had been cut. The street restoration manager said that the problem might be worse because of the amount of cable put into city streets in recent years. In addition, the city has recently increased the amount spent on the resurfacing program. The resulting increase in the number of streets resurfaced means that more new street surfaces may be cut.

Although city staff provides representatives of the utility companies with schedules of streets to be resurfaced, newly paved streets continue to be damaged by cutting. The utilities do not necessarily share their plans for cutting streets with the city and are not required to avoid cutting new streets. The ordinances adopted by the City Council in 1996 and subsequently repealed included provisions

## MGE Reimbursed the City for Cuts Made Without Permits

In January 1997, the city recovered \$57,112 from Missouri Gas Energy (MGE) for cuts that were made without permits. In March 1996, MGE agreed to repay the city for 2,596 excavations made without permits between September 18, 1994, and June 30, 1995. The city code requires that permits be obtained before making excavations in city right-of-way.

whereby damage recovery fees would be higher for streets that had been resurfaced during the previous five years. Enacting the ordinances, as we recommended earlier, will help preserve newly paved streets.

#### **Annual Agreements Not Developed**

In 1994, we found that utility companies acquired permits after the work was completed. We recommended that Public Works require utility companies to sign annual agreements in which they agree to abide by the city code, including the code requirement that permits be acquired before work begins.

This recommendation has not been implemented. Our follow-up work determined that utilities appear to continue to obtain permits after excavation work has begun. The program manager said that utilities sometimes enter permit information through the remote access system after they complete the work.

By being able to acquire permits through remote access, the city awards utilities a privilege not available to most other permittees. This privilege should be awarded, however, with the expectation that the utilities will abide by the city's rules regarding those permits, including the rule that permits need to be purchased before work begins. We recommend the city require utilities with remote access to the permit system to comply with city regulations as a condition of retaining remote access to the permit system.

#### Permits Should Be Issued Even If Fees Are Waived

In the original audit we recommended that permits be issued for excavations made by Public Works. This recommendation has not been implemented. In order to maintain control over the condition of city streets, the Public Works Department needs permit information to document who is making the cuts and where the cuts are located.

We also found that under the recent streetlight agreement, KCPL is required to follow applicable city standards when restoring cuts but is exempt from paying the fees for certain excavation permits. We recommend that permits be issued for excavations made by both the Public Works Department and KCPL, although the fees for those permits may be waived.

#### Recommendations

- 1. The city manager should prepare for City Council consideration an ordinance that would put to a public vote a proposal to recover the costs of the damage caused by street cuts.
- 2. The Public Works director should conduct warranty inspections on a sample of permits.
- 3. The Public Works director should ensure that the process the city uses to notify permit holders of problems with restored cuts provides adequate legal notice.
- 4. The Public Works director should use the enforcement mechanisms included in the Code of Ordinances to ensure permittees make timely repairs after being notified of problems with excavations.
- 5. The Public Works director should revise the Utility Cuts Rules and Regulations to specify conditions under which permittees may make multiple cuts under one permit.
- 6. The Public Works director should require utilities with remote access to the permit system to comply with city regulations as a condition of retaining remote access to the permit system.
- 7. The Public Works director should ensure that permits are issued for excavations made by Kansas City Power and Light under the streetlight agreement. The fees for these permits should be waived. In addition, permits should be issued for excavations made by Public Works. The fees for these permits should also be waived.

## Appendix A

Audit Report Tracking System (ARTS) Reports

Audit Report Tracking System		
1. Audit Title	2. This Report Date	
Utility Cuts Program Audit	6-Oct-94	
3. Department Public Works	4. Last Report Date N/A	
5. Department Head George E. Wolf, Jr.	6.   Contact Person/Phone Larry Frevert	
7. Audit Release Date 7-Mar-94	8. ARTS Number 94-3-1	

#### 9. Status of All Audit Recommendations

Status	Date	Status	Date
In Progress	10/6/94	6. Implemented	10/6/94
In Progress	10/6/94	7. In Progress	10/6/94
In Progress	10/6/94	8. In Progress	10/6/94
Implemented	10/6/94	9. In Progress	10/6/94
Implemented In Progress	10/6/94	3	

#### 10. Recommendations Included in this Report

Recommendation No. 1. The director of Public Works should develop policies that require the inspection of at least a sample of the cuts made by utilities.

In Progress, We are attempting to inspect 10% of the permits purchased by the utilities each month. We are requesting two additional inspectors be hired to primarily inspect utility company permits. This will allow us to inspect most of the utility company's permits. We have submitted an ordinance 8/11/94 to increase the fee for excavation permits. We plan to add inspectors as soon as possible after this increase is passed.

Recommendation No. 2. The director of Public Works should develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspections. The inspections should evaluate the cut against performance criteria established by the department.

In Progress, We have implemented better tracking of failed cuts that are being noted presently within the warranty period (See response to recommendation 4). To fully implement warranty inspections will require additional personnel, two of which we plan to have on board this year (1994). To implement all of the recommendations, we anticipate a total of eight inspectors will be required. We will recommend these additional inspectors in our 1995-96 budget submittal.

Page 2 of 3 **Audit Report Tracking System** Audit Title: Utility Cuts Program Audit Report Date: 10/6/94 10. Recommendations Included in this Report (continued) Recommendation No. 3. The director of Public Works should up-date the street cut restoration standards and the Utility Cut Rules and Regulations. In Progress, We are progressing towards implementing the new standard. The SR-1 has been revised (8/17/94) and submitted to the standards committee for approval. The revised rules and regulations are still being reviewed and will be submitted for approval to coincide with the adoption of the new standard. Recommendation No. 4. The director of Public Works should develop policies and procedures for tracking and documenting the repair of all failed cuts that the department identifies. These policies and procedures should be in agreement with the Code of General Ordinances. Implemented, We have implemented a revised method of tracking failed cuts. When a failed cut is found, the permittee is contacted by phone and a notification letter is sent. The permittee is given five (5) days to repair the cut as stated in the Code. After five days a follow up inspection of the cut is made. If no repairs have been made, the permittee is again contacted and a letter sent suspending them from obtaining anymore permits until the problem has been remedied. The streets district is then requested to make the repair. As a practical matter, if the contractor contacts us within the five days we do not send the suspension letter. We are noting on the permit when the problem has been resolved and are maintaining a separate file by the month for all the letters sent and repairs made so we can track the completion percentage etc. Recommendation No. 5. The director of Public Works should improve the effectiveness of the coordination mechanism between utility work and planned street resurfacing. The director should consider implementing financial incentives designed to improve the coordination between the City and utilities. In Progress, We have held discussions with the utilities, especially Missouri Gas Energy, to develop new procedures. We will provide the utilities with our proposed resurfacing work as soon as it can be developed with the goal of one year in advance. Recommendation No. 6. The director of Public Works should issue written guidelines that define the number of permits necessary for making excavations. Implemented, We have submitted, and the council has approved Ordinance Number 941056 specifying when permits are required. This will also be stated in the revised Rules and Regulations.

Page 3 of 3 **Audit Report Tracking System** Audit Title: Utility Cuts Program Audit Report Date: 10/6/94 10. Recommendations Included in this Report (continued) Recommendation No. 7. The director of Public Works should incorporate the guidelines about the number of permits necessary into annual agreements with the utilities. The agreements should also require that the utilities will comply with the provisions of the Code of General Ordinances, including the requirement that permits be obtained before excavations are made. In Progress, We are developing these agreements. Since they will be specific applications of the revised rules and regulation these will be completed following the adoption of the revised rules. Recommendation No. 8. The director of Public Works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived. In Progress, We are developing procedures to issue no cost permits to Public Works excavations. We need to establish who all will be affected by this and who will actually request the permit, especially in cases of contractors working for the Public Works Department. Recommendation No. 9. The City Manager should prepare for City Council consideration an ordinance to establish an excavation permit fee that would: A. Cover the direct and indirect costs of the City's regulatory program. The regulatory program should include inspection and permit issuance. B. Contain economic incentives to coordinate with the City's resurfacing plans in order to minimize the cutting of recently resurfaced streets. C. Recover the costs of damage that results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation. In Progress, We are still working towards determining an equitable fee structure and developing anticipated costs for a full inspection program. We are also evaluating cost figures for damage done to the streets by the cuts.

Audit Report Tracking System		
1. Audit Title	2. This Report Date	
Utility Cut Audit Tracking	19-Apr-95	
3. Department	4. Last Report Date	
Public Works Street & Traffic	6-Oct-94	
5. Department Head	6. Contact Person/Phone	
George E. Wolf, Jr.	Larry Frevert - 274-2481	
7. Audit Release Date	8. ARTS Number	
8-Mar-94	94-2-2	

#### 9. Status of All Audit Recommendations

Status	Date	Status	Date
. In Progress	4/19/95		
In Progress	4/19/95		
. In Progress	4/19/95		
Implemented	4/19/95		
In Progress	4/19/95		
Implemented	4/19/95		
. In Progress	4/19/95		
. In Progress	4/19/95		
In Progress	4/19/95		

#### 10. Recommendations Included in this Report

We have accomplished the following actions to implement the recommendations of the Utility Cut Audit: A Street Permits Task Force, composed of city staff, utility companies, contractors and other interested parties has been meeting since January 5. The first phase of these efforts was for street closure permit procedures and the task force will resume its efforts toward the utility cut permit program as of March 9.

Recommendation 1: The director of Public Works should develop policies that require the inspection of at least a sample of the cuts made by utilities.

In Progress: As of February 1995, we have added two inspectors to the section. We are now receiving Missouri Gas Energy's daily cut schedule and we are inspecting all of their cuts. We are pursuing similar notification and inspection methods with the other utilities.

Recommendation 2: The director of Public Works should develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspections. The inspections should evaluate the cut against performance criteria established by the department.

In Progress: We have implemented better tracking of failed cuts. We have begun, after 2.5 years, warranty inspections of all cuts that were made within the actual street surface. More work is needed to insure accurate information is on the permit as to where the work took place. This will be addressed in the Task Force meetings. The number of inspectors has been increased from three to five. Three additional inspectors were recommended in a departmental decision package for the Fiscal Year 95-96 budget.

Page 2 of 3

#### **Audit Report Tracking System**

Audit Title: Report Date:

#### 10. Recommendations Included in this Report (continued)

Recommendation 3: The director of Public Works should update the street cut restoration standards and the Utility Cut Rules and Regulations.

In Progress: We are progressing towards implementing the new standard. The SR-1 has been revised and submitted to the standards committee for approval. It has been redrawn and comments received. It should be adopted by April 1, 1995. The revised rules and regulations are being reviewed and will be taken up in the Task Force meetings.

Recommendation 4: The director of Public Works should develop policies and procedures for tracking and documenting the repair of all failed cuts that the department identifies. These policies and procedures should be in agreement with the Code of General Ordinances.

Implemented: We have implemented a revised method of tracking failed cuts.

In October 94, 6 failed cuts were repaired.

In November 94, 9 failed cuts were repaired.

In December 94, 10 failed cuts were repaired. In January 95, 13 failed cuts were repaired.

Recommendation 5: The director of Public Works should improve the effectiveness of the coordination mechanisms between utility work and planned street resurfacing. The director should consider implementing financial incentives designed to improve the coordination between the City and utilities.

In Progress: We will take this up in the Task Force meeting with the utilities. On September 14, 1994, we provided the utilities with our list of arterial streets proposed for resurfacing in 1995. On February 8, the proposed list of residential streets was provided to the utilities.

Recommendation 6: The director of Public Works should issue written guidelines that define the number of permits necessary for making excavations.

Implemented: The council adopted this ordinance 941956, on September 8, 1994. Further review of this subject may occur in the Task Force meetings.

Recommendation 7: The director of Public Works should incorporate the guidelines about the number of permits necessary into annual agreements with the utilities. The agreements should also require that the utilities will comply with the provisions of the Code of General Ordinances, including the requirement that permits be obtained before excavations are made.

In Progress: This will be the prime subject of the Task Force.

Recommendation 8: The director of Public Works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived.

In Progress: We are developing procedures to issue no cost permits for excavations done by Public Works and/or its contractors.

Page 3 of 3 **Audit Report Tracking System** Audit Title: Report Date: 10. Recommendations Included in this Report (continued) Recommendation 9: The City Manager should prepare for City Council consideration an ordinance to establish an excavation permit fee that would: A. Cover direct and indirect costs of the City's regulatory program. The regulatory program should include inspection and permit issuance. B. Contain economic incentives to coordinate with the City's resurfacing plans in order to minimize the cutting of recently resurfaced streets. C. Recover the costs of damage the results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation. In Progress: This also will be a major area of focus for the Street Permits Task Force.

Audit Report Tracking System				
I. Audit Title	2. This Report Date			
Utility Cut Audit Tracking	6-Dec-95			
3. Department	4. Last Report Date			
Public Works Street & Traffic	19-Apr-95			
5. Department Head	6.   Contact Person/Phone			
George E. Wolf, Jr.	Jere Meredith - 274-2481			
7. Audit Release Date	8. ARTS Number			
	94-3-2			

#### 9. Status of All Audit Recommendations

Status	_	Date	Status	Date
In Progress		12/6/95		
Implemented		12/6/95		
Partially Implemented		12/6/95		
Implemented		12/6/95		
Partially Implemented		12/6/95	*	
Implemented		12/6/95		
In Progress		12/6/95		
In Progress		12/6/95		
In Progress Partially Implemented	7 91	12/6/95		

#### 10. Recommendations Included in this Report

We have accomplished the following actions to implement the recommendations of the Utility Cut Audit: A Street Permits Task Force, composed of city staff, utility companies, contractors and other interested parties has been meeting since January 5. The first phase of these efforts was for street closure permit procedures and the task force has resumed its efforts toward the utility cut permit program.

Recommendation 1: The director of Public Works should develop policies that require the inspection of at least a sample of the cuts made by utilities.

In Progress: As of February 1995, we have added two inspectors to the section. We are now receiving Missouri Gas Energy's daily cut schedule and we are inspecting a % of their cuts. We are pursuing similar notification and inspection methods with the other utilities.

Recommendation 2: The director of Public Works should develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspections. The inspections should evaluate the cut against performance criteria established by the department.

Implemented: Beginning in April 1995, we have inspected all Type 0 and Type 1 permit cuts 2.5 years after the acceptance date. We have made 3, 180 of these warranty inspections during fiscal year 95/96 and have found 9 failures in that time. There are much fewer failures than we had predicted.

Page 2 of 3

#### **Audit Report Tracking System**

Audit Title: Report Date:

#### 10. Recommendations Included in this Report (continued)

Recommendation 3: The director of Public Works should update the street cut restoration standards and the Utility Cut Rules and Regulations.

Partially Implemented: The revised Street Cut Restoration Standard (SR-1) was approved and put into effect 6/3/95. All permitees with deposits on file were notified and mailed the new standard. The Rules and Regulations have been revised to reflect the new SR-1 but have not been finalized to deal with the method of repair for the zone of influence around the excavation.

Recommendation 4: The director of Public Works should develop policies and procedures for tracking and documenting the repair of all failed cuts that the department identifies. These policies and procedures should be in agreement with the Code of General Ordinances.

Implemented: So far in fiscal year 95/96, 107 notification letters have been sent and 90 have been repaired.

Recommendation 5: The director of Public Works should improve the effectiveness of the coordination mechanisms between utility work and planned street resurfacing. The director should consider implementing financial incentives designed to improve the coordination between the City and utilities.

Partially Implemented: The utility companies were notified in May 1995 of 70% - 80% of the arterial streets which will be resurfaced in 1996. They will be notified by February 1996 of all streets to be resurfaced in 1996. We are submitting an ordinance request that would allow a fee to be charged for anyone cutting a recently resurfaced street.

Recommendation 6: The director of Public Works should issue written guidelines that define the number of permits necessary for making excavations.

Implemented: The council adopted ordinance 941956 on September 8, 1994, that contain these guidelines.

Recommendation 7: The director of Public Works should incorporate the guidelines about the number of permits necessary into annual agreements with the utilities. The agreements should also require that the utilities will comply with the provisions of the Code of General Ordinances, including the requirement that permits be obtained before excavations are made.

In Progress: We are drafting the annual agreement documents which will include: Traffic Control provisions, excavation permits issuance, notification, repair criteria, warranty, failure criteria, charges and fees for damage to street pavement and fees for cutting new streets.

Recommendation 8: The director of Public Works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived.

In Progress: Discussions are still being held on this item. Concern has been expressed by some about having a permit covering something already covered by contract. However, we are having all Public Works excavations repaired in accordance with the SR-1 Standard.

Page 3 of 3

#### **Audit Report Tracking System**

Audit Title: Report Date:

#### 10. Recommendations Included in this Report (continued)

Recommendation 9: The City Manager should prepare for City Council consideration an ordinance to establish an excavation permit fee that would:

- A. Cover direct and indirect costs of the City's regulatory program. The regulatory program should include inspection and permit issuance.
- B. Contain economic incentives to coordinate with the City's resurfacing plans in order to minimize the cutting of recently resurfaced streets.
- C. Recover the costs of damage the results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation.
- A. Implemented: The increase in permit fees to \$22.00 (effective September 1994) pays for cost of the program as it now is set up.
- B. In Progress: Proposed ordinance being prepared that would have fees for pavement damage with 20% increase for street surfaces less than five years old.
- C. In Progress: Proposed ordinance being prepared would charge a fee or require the contractor or utility company to make repairs, for actual damage made to the pavement.

Audit Report Tracking System			
I. Audit Title	2. This Report Date		
Utility Cut Audit Tracking	1-Nov-96		
3.  Department	4. Last Report Date		
Public Works Street & Traffic	6-Dec-95		
5.  Department Head	6.   Contact Person/Phone		
George E. Wolf, Jr.	Jere Meredith-274-2481		
7. Audit Release Date	8. ARTS Number		
	94-3-2		

Status	Date	Status	Date
I. Implemented	8/1/96		
2. Implemented	4/1/95		
3. Partially Implemented	9/1/96		
1. Implemented	4/1/95		
5. Partially Implemented	9/1/96		
5. Implemented	9/1/94		
7. In Progress	9/1/96		
3. In Progress	9/1/96		
Partially Implemented	9/1/96		

## 10. Recommendations Included in this Report

**Recommendation No. 1:** The director of Public Works should develop policies that require the inspection of at least a sample of the cuts made by utilities.

Status: Implemented 8/96. We are now receiving hard copy permits of all Type O (Utility issued) permits. We are inspecting approximately 50% of these permits.

**Recommendation No. 2:** The director of Public Works should develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspections. These inspections should evaluate the cut against performance criteria established by the department.

Status: Previously Implemented

Recommendation No. 3: The director of Public Works should update the street cut restoration standards and the Utility Cut Rules and Regulations.

**Status:** Partially Implemented. The SR-1 standard has been revised and in force since 6/3/95. The Rules and Regulations are not yet in force pending voter approval of a revised Street Cut damage fee ordinance in February 1997.

Audit Report Tracking System

Audit Title:
Report Date: 1-Nov-96

10. Recommendations Included in this Report (continued)

Recommendation No. 4: The director of Public Works should develop policies and

procedures for tracking and documenting the repair of all failed cuts that the department identifies. These policies and procedures should be in agreement with the Code of General Ordinances.

Status: Previously Implemented

Recommendation No. 5: The director of Public Works should improve the effectiveness of the coordination mechanisms between utility work and planned street resurfacing. The director should consider implementing financial incentives designed to improve the coordination between the City and Utilities.

Status: Partially Implemented. The Utility Companies are notified in May each year of 80% of the arterial streets planned to be resurfaced in the following year. They are notified in February of all the streets to be resurfaced that year. The street damage fee ordinance includes additional costs for cutting a recently resurfaced street and is up for voter approval in February 1997.

Recommendation No 6: The director of Public Works should issue written guidelines that define the number of permits necessary for making excavations.

Status: Previously Implemented.

**Recommendation No. 7:** The director of Public Works should incorporate the guidelines about the number of permits necessary into annual agreements with the utilities. The agreements should also require that the utilities will comply with the provisions of the Code of General Ordinances, including the requirement that permits be obtained before excavations are made.

Status: In Progress: We have drafted and implemented agreements for annual Traffic Control requirements. We are waiting for the revised rules and regulations to be implemented before proceeding with the rest of the agreements.

**Recommendation No. 8:** The director of Public Works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived.

Status: In Progress. Public Works Streets & Traffic is requesting the ability to issue permits for its own work similar to a franchised utility or the Water Services department. This will take some modification of the permit system. Public Works Engineering is working on procedures to track their contract projects under the same system as their permit projects so as to document any excavations made under a permit number.

**Recommendation No. 9:** The City Manager should prepare for City Council consideration an ordinance to establish an excavation permit fee that would:

A. Cover direct and indirect costs of the City's regulatory program. The regulatory program should include inspection and permit issuance.

B. Contain economic incentives to coordinate with the City's resurfacing plans in order to minimize the cutting of recently resurfaced streets.

C. Recover the costs of damage the results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation.

			Page :	3 of 3
Audit Report Tracking System				
Audit Title: Report Date:	1-Nov	-96		
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status: A. Previously I				
B. In Progress. contains thes C. In Progress. contains a me	The street damage fee ord	inance, passed by counc e to pay for these damag	il and up for voter appr	oval
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Audit I	Report Tracking System
I.  Audit Title  Utility Cut Audit Tracking	2. This Report Date 1-May-97 UN 11 1997 CITY AUDITOR'S
3. Department Public Works Street & Traffic	4. Last Report Date
5. Department Head George E. Wolf, Jr.	6.   Contact Person/Phone Jere Meredith-274-2481
7. Audit Release Date	8.  ARTS Number 94-3-2

Status	Date	Status	Date
1. Implemented	8/1/96	9B. Not Implemented	5/1/97
2. Implemented	4/1/95	9C. Not Implemented	5/1/97
3. Partially Implemented	5/1/97	1	
1. Implemented	4/1/95		
5. Not Implemented	5/1/97		
5. Implemented	9/1/94		
7. In Progress	5/1/97		
8. In Progress	5/1/97		
9A. Implemented	5/1/97		

#### 10. Recommendations Included in this Report

**Recommendation No. 1:** The director of public works should develop policies that require the inspection of at least a sample of the cuts made by utilities.

Status: Implemented 8/96. We are now receiving hard copy permits of all Type O (Utility issued) permits. We are inspecting approximately 70% of of these permits and are performing follow-up inspection if the cut is in the street surface. We were able to reach the 70% figure during the winter months with 5 inspectors. We have since lost one inspector to budget cuts and expect the percentage of permits inspected to fall to 50% or less in the summer months.

**Recommendation No. 2:** The director of public works should develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspections. The inspections should evaluate the cut against performance criteria established by the department.

Status: Previously Implemented

**Recommendation No. 3:** The director of public works should update the street cut restoration standards and the Utility Cut Rules and Regulations.

Status: Partially Implemented. The SR-1 standard has been revised and in force since 6/3/95. The Rules and Regulations have been revised again to remove mention of the street damage restoration fee and are in the approval process.

Page 2 of 3

#### **Audit Report Tracking System**

Audit Title:

Report Date:

1-May-97

#### 10. Recommendations Included in this Report (continued)

Recommendation No. 4: The director of public works should develop policies and procedures for tracking and documenting the repair of all failed cuts that the department identifies. These policies and procedures should be in agreement with the Code of General Ordinances.

Status: Previously Implemented

Recommendation No. 5: The director of public works should improve the effectiveness of the coordination mechanisms between utility work and planned street resurfacing. The director should consider implementing financial incentives designed to improve the coordination between the City and Utilities.

Status: Not Implemented. The Utility Companies are notified in May each year of 80% of the arterial streets planned to be resurfaced in the following year. They are notified in February of all the streets to be resurfaced that year. The financial incentives/disincentives were included in the ordinance that was rescinded.

Recommendation No 6: The director of public works should issue written guidelines that define the number of permits necessary for making excavations.

Status: Previously Implemented.

Recommendation No. 7: The director of public works should incorporate the guidelines about the number of permits necessary into annual agreements with the utilities. The agreements should also require that the utilities will comply with the provisions of the Code of General Ordinances, including the requirement that permits be obtained before excavations are made.

Status: In Progress: We have drafted and implemented agreements for annual Traftic Control requirements. When the revised rules and regulations are approved we will include them in a packet with a summary of all ordinances, rules and regulations concerning excavations in the right-of-way. This will be sent to all utilities working within the ROW.

Recommendation No. 8: The director of public works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived.

Status: In Progress. Public Works is requesting Office of Technology and Information Systems to modify the permit system to allow issuance of permits to Public Works similar to the methods used by Water Services. (Due to the proposed purchase of a new permit software system this may not be completely implemented until the new system is in place.)

Recommendation No. 9: The City Manager should prepare for City Council consideration an ordinance to establish an excavation permit fee that would:

A. Cover direct and indirect costs of the City's regulatory program. The regulatory program should include inspection and permit issuance.

B. Contain economic incentives to coordinate with the City's resurfacing plans in order to minimize the cutting of recently resurfaced streets.

C. Recover the costs of dama; ge that results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation.

								Page 3	of 3
				Audit Rep	ort Track	ing System			
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0. Rec	commen	dations I	ncluded in	this Report (	continued)				
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Audit Report Tracking System			
I.   Audit Title  Utility Cut Audit Tracking	2. This Report Date		
3. Department Public Works Street & Traffic	4. Last Report Date		
5. Department Head  George E. Wolf, Jr.	6.   Contact Person/Phone  Jere Meredith-274-2481		
7. Audit Release Date	8. ARTS Number 94-3-2		

Status	Date	Status	Date
Implemented     Implemented	8/1/96 4/1/95	9B. Not Implemented 9C. Not Implemented	11/1/97
3. Partially Implemented 4. Implemented	5/1/97 4/1/95	, o. 1100 improments	Dr.
5. Implemented 6. Implemented	5/1/97 9/1/94	A	uen 🚫
7. In Progress	11/1/97	RECEI DEC II	
8. In Progress 9A. Implemented	11/1/97 5/1/97	CITY AUD	OTOR'S

#### 10. Recommendations Included in this Report

Recommendation No. 1: The director of public works should develop policies that require the inspection of at least a sample of the cuts made by utilities.

Status: Previously implemented 8/96.

Recommendation No. 2: The director of public works should develop policies and procedures for the systematic inspection of cuts during the warranty period and the documentation of those inspection s. The inspections should evaluate the cut against performance criteria established by the department.

Status: Previously Implemented

Recommendation No. 3: The director of public works should update the street cut restoration standards and the Utility Cut Rules and Regulations.

Status: Partially Implemented. New standards implemented 6/3/95. Rules and Regulations have been revised again and will be finalized upon completion of talks with Missouri Gas Energy and other utilities.

Recommendation No. 4: The director of public works should develop policies and procedures for tracking and documenting the repair of all failed cuts that the department identifies. These policies and procedures should be in agreement with the Code of General Ordinances.

Audit Report Tracking System

Audit Title:
Report Date: 1-Nov-97

10. Recommendations Included in this Report (continued)

Status: Previously Implemented

Recommendation No. 5: The director of public works should improve the effectiveness of the coordination mechanisms between utility work and planned street resurfacing. The director should consider implementing financial incentives designed to improve the coordination between the City and utilities.

Status: Implemented. The utility Companies are notified in May each year of 80% of the arterial streets planned to be resurfaced in the following year. They are notified in February of all the streets to be resurfaced that year. The financial incentives/disincentives were included in the ordinance that was rescinded.

**Recommendation No 6:** The director of public works should issue written guidelines that define the number of permits necessary for making excavations.

Status: Previously Implemented.

Recommendation No. 7: The director of public works should incorporate the guidelines about the number of permits necessary into annual agreements with the utilities. The agreements should also require that the utilities will comply with the provisions of the Code of General Ordinances, including the requirement that permits be obtained before excavations are made.

Status: In Progress: We have drafted and implemented agreements for annual Traffic Control requirements. When the revised rules and regulations are approved we will include them in a packet with a summary of all ordinances, rules and regulations concerning excavations in the right-of-way. This will be sent to all utilities working within the ROW.

Recommendation No. 8: The director of public works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived.

Status: In Progress. Public Works and the Office of Technology and Information are purchasing/developing a new permit software system. When this is operational, Public Works will be able to issue permits for internal projects.

Recommendation No. 9: The City Manager should prepare for City Council consideration an ordinance to establish an excavation permit fee that would:

A. Cover direct and indirect costs of the City's regulatory program. The regulatory program should include inspection and permit issuance.

B. Contain economic incentives to coordinate with the City's resurfacing plans in order to minimize the cutting of recently resurfaced streets.

C. Recover the costs of damage that results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation.

Status: A. Previously Implemented. We are reviewing data to make sure we are still covering this cost.

B. Not Implemented. Street damage fee was in ordinance that was rescinded. C. Not Implemented. Street damage fee was in ordinance that was rescinded.

Audit Report Tracking System		
I. Audit Title  Utility Cut Audit Tracking	2. This Report Date 7-May-98	
B. Department Public Works Street & Traffic	4. Last Report Date 1-Nov-97	
George E. Wolf, Jr.	6. Contact Person/Phone  Jere Meredith-274-2481	
. Audit Release Date	8. ARTS Number 94-3-2	

Status	Date	Status	Date
. Implemented	8/1/96	9B. Implemented	5/5/98
2. Implemented	4/1/95	9C. Not Implemented	11/1/97
Implemented	5/5/98		
I. Implemented	4/1/95		
5. Implemented	5/1/97		
5. Implemented	9/1/94		
7. Implemented	5/7/98		
3. In Progress	5/1/98		
A. Implemented	5/1/97		

#### 10. Recommendations Included in this Report

**Recommendation No. 3:** The director of public works should update the street cut restoration standards and the Utility Cut Rules and Regulations.

Status: Implemented 5/5/98. New standards and rules were adopted 5/5/98 providing for expanded area of repair for all cuts and repaving of entire lane width when cutting newly resurfaced streets.

Recommendation No. 7: The director of public works should incorporate the guidelines on the number of permits necessary into annual agreements with the utilities. The agreements should also require utilities to comply with provisions in the Code of General Ordinances, including the requirement that permits are to be obtained before excavations are made.

Status: Implemented 5/7/98. The revised standards, rules and regulations, along with pertinent ordinances, are being assembled and sent to all utilities. We are also developing joint operating committees with the utilities to promote better cooperation between the city and the utilities. One joint operating committee is in place for street lighting and another is being formed that will include Missouri Gas Energy, Water Services, Public Works, and Parks and Recreation.

Page 2 of 2 **Audit Report Tracking System** Audit Title: 7-May-98 Report Date: 10. Recommendations Included in this Report (continued) Recommendation No. 8: The director of public works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived. Status: In Progress. The city has purchased a new permit software system, KIVA. It is being implemented at this time. This system will allow the issuance and tracking of permits for all work, including work performed by the Public Works Department. Recommendation No. 9: The City Manager should prepare for City Council consideration an ordinance to establish an excavation permit fee that would: A. Cover direct and indirect costs of the City's regulatory program. The regulatory program should include inspection and permit issuance. B. Contain economic incentives to coordinate with the City's resurfacing plans in order to minimize the cutting of recently resurfaced streets. C. Recover the costs of damage that results from street cuts. Revenue from this portion of the fee should be devoted to street maintenance and preservation. Status: A. Previously Implemented B. Implemented 5/5/98 The SR-1 standard adopted on 5/5/98 provides for whole lane width restoration if a newly resurfaced street is cut. C. Not Implemented Street damage fee was in ordinance that was rescinded.

Audit Rep	ort Tracking System
1. Audit Title	2. This Report Date 5-Jan-99
Utility Cut Audit Tracking  3.   Department	4.  Last Report Date
Public Works Street & Traffic	7-May-98
5. Department Head George E. Wolf, Jr.	6. Contact Person/Phone  Jere Meredith-274-2481
7. Audit Release Date	8. JARTS Number 94-3-2

Status	Date	Status	Date
1. Implemented 2. Implemented 3. Implemented 4. Implemented 5. Implemented 6. Implemented 7. Implemented 8. Implemented 9A. Implemented	8/1/96 4/1/95 5/5/98 4/1/95 5/1/97 9/1/94 5/7/98 1/1/99 5/1/97	9B. Implemented 9C. Not Implemented	5/5/98 11/1/97

#### 1. Recommendation Included in this Report

**Recommendation No. 8:** The director of public works should require that permits are issued for excavations made by the Public Works Department. The fee for such permits may be waived.

Status: Implemented 1/1/99. The KIVA system is being implemented this month and will be fully operational by the end of the January 1999. Public works and their contractors will issue permits and track their work using the KIVA system.

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Damage Cost Estimates

Follow-Up Audit: Street Cut Inspection Program

#### **Damage Cost Estimates**

We used a method developed by the city and Terracon Consultants, Inc. to estimate the cost of damage caused by street cuts made under excavation permits. Terracon found that 1.75 feet on each side of a cut would need to be removed and replaced in order to "correct structural damage to the pavement due to the influence of the utility cut."

The formula to calculate the cost of damage is:

Damage = (number of excavation permits) \* (probability cuts were on pavement) \* (area of damage) \* (damage cost)

#### Where:

Area of damage = (((1.75 feet \* 2) + length) \* ((1.75 \* 2) + width)) - (length \* width)

Damage cost = cost of full depth removal and replacement of all pavement layers above subgrade soil

We used a variety of sources to compile the data we needed to estimate the cost of damage.

The number of permits was from the city's permit database. The probability cuts were on pavement is based on an analysis done by public works and our analysis of the city's permit database. The street cut inspection program manager reviewed the excavation permits issued in 1995 to determine the number that were for cuts made to street surface and the total number made. We reviewed the permit database to update portions of the analysis done by Public Works. (See Exhibits 6 and 7.)

Exhibit 6. Percent of Utility Excavation Permits for Pavement Cuts

1011 avoilient outs							
Percent							
72%							
70%							
15%							
	Percent 72% 70%						

Source: Public Works Department.

Exhibit 7. Percent of Other Excavation Permits for Pavement Cuts

Figural Vege	Doroont
Fiscal Year	Percent
1994	6.6%
1995	9.8%
1996	12.3%
1997	14.4%
1998	12.2%

Source: Public Works Department, permit database.

We used the city's permit database to calculate the average dimensions of cuts. (See Exhibit 8.) The street resurfacing program manager provided the cost of full depth removal and replacement. The value we used was \$8.50 per square foot.

Exhibit 8. Average Dimensions of Cuts Made to Street Surfaces

Length (feet)	Width (feet)
6.62	5.03
4.27	3.36
6.49	4.51
	6.62 4.27

Source: Public Works Department, permit database.

# Appendix C

Letter Regarding Mid-America Regional Council, Public Right-of-Way Cost Recovery Plan 300 Rivergate Center 600 Broadway Kansas City, Missouri 64105-1554

816/474-4240 816-421-7758 FAX www.marc.org



March 16, 1999



Mr. Mark Funkhouser City Auditor City Hall, 414 East 12<sup>th</sup> Street Kansas City, Missouri 64106

Dear Mr. Funkhouser:

I am writing to provide you with some detail on the genesis of the *Public Right-of-Way Cost Recovery Plan* dated May 1998. This study was commissioned by the Mid-America Regional Council (MARC) on behalf of 13 metropolitan area cities, including Kansas City, Missouri. Deregulation of the telecommunications industry and the potential deregulation of the natural gas and electric industries have put new emphasis on management of the public's right-of-way. An important aspect of this management responsibility is recovery of costs associated with incursions into the right-of-way.

To appropriately identify right-of-way costs and the means to recover them, the 13 cities, under MARC's leadership, commissioned Springsted, a public finance advisor, to undertake a study of right-of-way costs. Springsted has considerable experience in such studies in the Midwest. Springsted collected data and provided analysis. The data, however, was provided by the public works departments of the 13 participating cities. In addition, representatives of the cities met several times to review Springsted's data and develop a consensus on the most appropriate methods for calculating right-of-way incursion costs. The final report reflects the consensus of the representatives of the 13 cities.

Right-of-way management and recovery of costs associated with this management have been a priority for local governments the last couple of years. It is a complex issue and we believe the Springsted study has provided local governments with the documented information they need to make sound decisions about restructuring their right-of-way policies. Several cities in the metro area are, in fact, moving forward to incorporate information from the Springsted study in their new right-of-way ordinances.

If you have any questions about the study please do not hesitate to contact me.

1 ours truly,

Dávid Warm Executive Director

Chair

Betty Knight Presiding Commissioner Platte County, MO 1st Vice Chair Annabeth Surbaugh Commissioner Johnson County, KS 2nd Vice Chair Irene B, French Mayor Merriam, KS Secretary
Gene A. Molendorp
Presiding Commissioner
Cass County, MO

John "Tiny" McTaggart Commissioner Unified Government Wyandotte County/

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Follow-Up Audit: Street Cut Inspection Program

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# Appendix D

City Manager's Response



## Office of the City Manager



DATE:

March 16, 1999

TO:

Mark Funkhouser, City Auditor

FROM:

Robert Collins, City Manager

SUBJECT:

Audit Report, Utility Cuts Program Follow-up Audit

We have read your follow-up audit report for the utility cuts program. Recommendation number one is addressed to this office. It is:

The city manager should prepare for City Council consideration an ordinance that would put to a public vote a proposal to recover the costs of damage caused by street cuts.

I have discussed this recommendation with Director of Public Works, Ed Wolf. We agree this issue needs to be presented to the council once again for their consideration. I intend to discuss this recommendation with Director of Water Services, Gurnie Gunter, so I have a better understanding of the recommendation's impact on his operations.

Following that discussion, once a new mayor and council take office, I will establish a dialogue with them regarding this subject. At that point, assuming the mayor and council are supportive, we will plan to introduce such an ordinance.

cc:

Ed Wolf

Gurnie Gunter Walter O'Toole

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Appendix E

Director of Public Works' Response



## **Interdepartmental Communication**



DATE:

March 17, 1999

TO

Mark Funkhouser, City Auditor

FROM:

George E. Wolf, Jr., P.E., Director of Public Works

SUBJECT: Audit Report, Utility Cuts Program Follow-up Audit

Below are responses to recommendations 2 through 7 in your follow-up audit report for the utility cuts program. I understand that the city manager has responded to the first recommendation in the report.

Agree We will initiate systematic warranty inspections. Recommendation No. 2

Recommendation No. 3 Agree Public works will work with the law department to insure that our notification procedures meet all legal requirements and are also effective.

Recommendation No. 4 Agree We will also work with the codes and law departments to enforce the timely repair of problem excavations.

Recommendation No. 5 Agree We will revise the utility cut rules to clearly state under what condition multiple cuts are allowed under one permit.

Recommendation No. 6 Agree We will develop an access "agreement" for all who are allowed to use remote access to obtain permits.

Recommendation No. 7 Agree We will work with KCP&L to insure all excavations made for streetlights are issued permits. We will also work within the department to make sure all excavations for the placement or repair of underground facilities are issued permits.

GEW:JEM:lw